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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,301

04/19/2004

Masahiko Hirose

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65565 7590 01/25/2007
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EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1723

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/826,301

Applicant(s)

HIROSE ET AL.

Examiner

Krishnan S. Menon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-16 are pending as originally filed

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 8-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,709,590 and US Patent 6,723,422; and claims 3 and 4 of copending application 11/242,049. Although the conflicting claims are not identical, they are not patentably distinct from each other because all the claims recite an interfacially polymerized poly7amide reverse osmosis membrane. The additional limitations in the instant claims pertain to the process of

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making, which is not considered as making any structural difference to the membrane when compared to the claims of the patents and the application referenced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by WO99/01208 (US equivalent to Hirose, US 6,723,422 is used for the rejection).

Hirose teaches a method of making, and polyamide membrane made, by interfacial polymerization of a polyfunctional amine and a polyfunctional acid chloride in presence of an organic acid and sodium hydroxide (column 4 lines 18-21: porous support is contacted with NaOH) over a porous support film (Example 1: camphor sulfonic acid as the organic acid; MPA and trimesic acid chloride. 'Solution A' contains polyacrylic acid or other organic acids – see column 4 lines 29-42. Thus the reaction takes place in presence of an organic acid and sodium hydroxide). Temperature is 120C. The pH is 8-13 when NaOH is used on the polysulfone porous membrane, which overlaps the range.

Claims 8-16 are for the product membrane, which is anticipated by the reference. The process limitations are not patentable since the reference teaches them; and are not otherwise considered patentable limitations for the product. "[E]ven though product-

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by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re *Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomaschke (US 6,464,873).

Tomaschke teaches a method of making, and polyamide membrane made, by interfacial polymerization of a polyamine and a polyacid chloride (see example 1) in the presence of camphor sulfonic acid and sodium hydroxide on polysulfone porous membrane. Temperature is above 100C. Regarding the pH adjustment, see column 8 lines 12-46. Normality ratio of the organic acid to sodium hydroxide would be inherently in the range claimed because the reference teaches the resultant pH falls in the same range claimed. The process limitations in the product claims are taught by the reference; and are also otherwise not patentable – in re *Thorpe*.

Response to Arguments

Applicant's arguments filed 1/4/07 have been fully considered but they are not persuasive.

With respect to the ODP rejection, product claims are rejected; process limitations in the claims do not make them patentable over the reference. However, the process as recited in the claims also is taught by the reference. Having bromide in the reference membrane would not overcome the ODP – claims in the application are broader. Unexpected results also would not overcome the ODP rejection. There is also no evidence of any unexpected result with respect to the reference membranes in the instant claims as argued.

With respect to the Hirose reference, the argument that it does not teach "... an alkali metal hydroxide and an organic acid" is not convincing. As shown in the rejection, the reference expressly teaches adding both an organic acid and NaOH. Even if no other organic acid is added, the mixed acid chloride used in the reaction itself would be sufficient to anticipate the claims.

Argument regarding claim 8, unexpected results, is not persuasive because (1) there is no unexpected results when compared to the results of the reference, (2) this argument is not relevant in the anticipation rejection.

With respect to Tomasche, the reference teaches hydrolyzing the TEACSA with sodium hydroxide, which means the solution would have camphor sulfonic acid and sodium hydroxide (all together) in solution during the process. Thus the claims are anticipated. Applicant's arguments are also not commensurate with the claims, because the claims do not recite that they are all reacted together.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

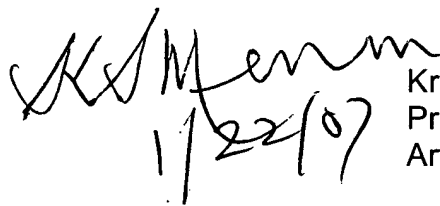
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Krishnan S Menon and the date 1/22/07.

Krishnan S Menon
Primary Examiner
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